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SECTION 1100 - WETLANDS

SECTION 1110.00 - INTRODUCTION

The term "**wetlands**" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. [33CFR 328.3(b)]

For purposes of ITD projects, wet lands are classifications into two categories: jurisdictional and non-jurisdictional. Jurisdictional wetlands are those surface waters containing hydrology, soils or vegetation that conform to U. S. Army Corps of Engineers (COE) specifications for classification as a wetland, that empty into Waters of the United States and are under the jurisdiction of the COE. Non jurisdictional wetlands do not empty into waters of the United States, are not under the jurisdiction of the COE but are protected under Executive Order 11990 (see 1120.02.03) and subject FHWA impact review (see 1150.01)

Wetlands can provide important functions and values, including groundwater recharge, flood flow alteration, water quality improvements, erosion control and shoreline stabilization, and fish and wildlife food and habitat. This section includes information on wetland inventory, assessment, mitigation, and related procedures that should be followed when it is anticipated that a ITD project may have an impact on wetlands. It should be noted that wetland issues have the potential to trigger an analysis of aquatic and terrestrial wildlife and habitat in the vicinity of the wetland (see [Section 1000](#)).

Planning processes under the ESA and the Clean Water Act (CWA) are becoming increasingly integrated. The Environmental Protection Agency (USEPA), Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), U. S. Army Corps of Engineers, and state Department of Environmental Quality (DEQ) are working to ensure that Idaho's wetland permits and procedures meet the goals and requirements of the ESA In turn, ITD is incorporating ESA related issues into its water quality procedures and design standards.

Impacts of transportation projects that may adversely affect wetlands include: sediment loads and deposition; toxic runoff; alteration of natural drainage patterns; water level increases or decreases; wetland filling or displacement; wetland draining due to channel straightening, deepening, or widening; and development in the wetland buffer areas that protect and shield the wetland from adverse impacts to water quality and habitat functions. When wetlands are adversely affected by a transportation project, ITD provides compensation for the impacts by restoring, enhancing, and/or creating wetlands.

1110.01 Summary of Requirements. ITD policy is to avoid to the fullest extent practicable any activities that would adversely affect wetlands during the design, construction, and maintenance of the state transportation system. ITD supports federal and state "no net loss" policies by protecting, restoring, and enhancing natural wetlands that are unavoidably and adversely impacted by transportation-related construction, maintenance, and operations activities. ITD is committed to taking appropriate action to minimize impacts and to mitigate impacts that cannot be avoided, as required by federal, state, and local laws. In the event of unavoidable impacts, ITD policy is to consider the use of mitigation concepts. These include wetland mitigation banking

and advanced mitigation such as wetland preservation where no overall net loss of functions will result. Applicable policies are referenced in [Section 1130.00](#).

Wetland analysis and impact mitigation are integral parts of the engineering and environmental process. Early review and analysis of project alternatives by regulatory and resource agencies, combined with effective inter-office coordination, are key elements in meeting project schedules and developing a successful wetland management program.

Environmental Evaluations sometimes include information on additional aquatic resources (such as streams) together with wetland issues. In routine wetland practice, the primary discipline reports (Wetland Inventory Report, BE/BA, Conceptual Mitigation Plan, and Wetland Mitigation Plan) provide the basis for responding to wetland issues. To facilitate the production of a wetland discipline report, technical documents that pertain directly to a given discipline report are included as reference documents for that particular report.

Information on policy and technical documents, MOUs, Interagency Agreements, permits, certificates, and approvals included in this section provides background useful in preparing the ITD wetland discipline reports.

1110.02 Abbreviations and Acronyms. Abbreviations and acronyms used in this section are listed below. Others are found in the general list in the appendix.

BE/BA	Biological Evaluation/Biological Assessment
401Certification	Clean Water Act Section 401 Water Quality
COE	U.S. Army Corps of Engineers
CWA	Clean Water Act
DEQ	Idaho State Department of Environmental Quality
DOL	Department of Lands
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
HGM	Hydro-geomorphic Model
IDF&G	Idaho Fish and Game
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NWP	Nationwide Permit
PE	Project Engineer or Professional Engineer
PS&E	Plans, Specifications, and Estimates
DEC	District Environmental Coordinator
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

1110.03 Glossary. Many technical terms are associated with wetlands. A glossary of wetland terminology, including terms used in mitigation banking, is presented in [Exhibit 1100-3](#).

SECTION 1120.00 - APPLICABLE STATUTES AND REGULATIONS

This section lists the primary federal and state statutes applicable to wetland issues. Permits required pursuant to these statutes are described in [Section 1160.01](#).

1120.01 National Environmental Policy Act. The National Environmental Policy Act (NEPA), requires that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on wetlands are given due weight in project decision-making. Federal implementing regulations are at 23 CFR 771 and 777 (FHWA) and 40 CFR 1500-1508 (CEQ). Wetland issues identified in NEPA documents include wetland impacts, acreage totals and functions and values, and avoidance and minimization measures. Also included is a commitment to mitigate for the impacts, with general or conceptual mitigation ideas and acreage requirements discussed. For details see [Section 200](#).

1120.02 Federal.

1120.02.01 Clean Water Act. The Water Pollution Control Act, better known as the Clean Water Act (CWA), 33 USC Section 1251 *et seq.* provides for comprehensive federal regulation of all sources of water pollution. It prohibits the discharge of pollutants from non-permitted sources. The CWA authorizes the USEPA to administer or delegate wetland regulations covered under the act. In Idaho authority is delegated mainly to the U.S. Army COE and DEQ. USEPA administers CWA implementation on tribal and federal land. Implementation requirements for CWA Sections 401, and 404 are described in [Section 1160.02](#). The law is online at: - <http://www4.law.cornell.edu/uscode/> Click on Title 33, then Chapter 26.

1120.02.02 Endangered Species Act (ESA). This act is administered by USFWS and NMFS (NOAA Fisheries). Formal consultation under the act is triggered by a federal nexus (see glossary Exhibit 1100-3) which is triggered by federal permits, federal funding or actions on federal land, and by the potential harm, harassment, or take of listed species or impacts to their habitat. Informal consultation under Section 10 of the act requires applicants to comply with the ESA even if a federal nexus does not occur. The ESA has relevance to wetlands section because of listed aquatic species. Please see [Section 1000.00](#) for details. The law is online at: - <http://www4.law.cornell.edu/uscode/> Click on Title 16, then Chapter 35.

1120.02.03 Protection of Wetlands, Presidential Executive Order 11990.

May 24, 1977, 42 F.R. 26961

By virtue of the authority vested in me by the Constitution and statutes of the United States of America, and as President of the United States of America, in furtherance of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*), in order to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or Indirect support of new construction in wetlands wherever there is a practicable alternative, it is hereby ordered as follows:

Section 1. (a) Each agency shall provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

(b) This Order does not apply to the issuance by Federal agencies of permits, licenses, or allocations to private parties for activities involving wetlands on non-Federal property.

Sec. 2. (a) In furtherance of Section 101(b)(3) of the [National Environmental Policy Act of 1969](#) (42 U.S.C. 4331(b)(3)) to improve and coordinate Federal plans, functions, programs and resources to the end that the Nation may attain the widest range of beneficial uses of the environment without degradation and risk to health or safety, each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is **no practicable* alternative** [emphasis added] to such construction, and (2) that the proposed action includes **all practicable measures to minimize harm** to wetlands** [emphasis added] which may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors.

(b) Each agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands, in accordance with Section 2(b) of Executive Order No. 11514, as amended, including the development of procedures to accomplish this objective for Federal actions whose impact is not significant enough to require the preparation of an environmental impact statement under Section 102 (2) (C) of the [National Environmental Policy Act of 1969](#), as amended.

Sec. 3. Any requests for new authorizations or appropriations transmitted to the Office of Management and Budget shall indicate, if an action to be proposed will be located in wetlands, whether the proposed action is in accord with this Order.

Sec. 4. When Federally-owned wetlands or portions of wetlands are proposed for lease, easement, right-of-way or disposal to non-Federal public or private parties, the Federal agency shall (a) reference in the conveyance those uses that are restricted under identified Federal, State or local wetlands regulations; and (b) attach other appropriate restrictions to the uses of properties by the grantee or purchaser and any successor, except where prohibited by law; or (c) withhold such properties from disposal.

Sec. 5. In carrying out the activities described in Section I of this Order, each agency shall consider factors relevant to a proposal's effect on the survival and quality of the wetlands. Among these factors are:

(a) public health, safety, and welfare, including water supply, quality, recharge and discharge; pollution; flood and storm hazards; and sediment and erosion;

(b) maintenance of natural systems, including conservation and long term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and

(c) other uses of wetlands in the public interest, include recreational, scientific, and cultural uses.

Sec. 6. As allowed by law, agencies shall issue or amend their existing procedures in order to comply with this Order. To the extent possible, existing processes, such as those of the Council on Environmental Quality and the Water Resources Council, shall be utilized to fulfill the requirements of this Order.

Sec. 7. As used in this Order: (a) The term "agency" shall have the same meaning as the term "Executive agency" in Section 105 of Title 5 of the United States Code and shall include the military departments; the directives contained in this Order, however, are meant to apply only to those agencies which perform the activities described in Section I which are located in or affecting wetlands.

(b) The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of this Order.

(c) The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

Sec. 8. This Order does not apply to projects presently under construction, or to projects for which all of the funds have been appropriated through Fiscal Year 1977, or to projects and programs for which a draft or final environmental impact statement will be filed prior to October 1, 1977. The provisions of Section 2 of this Order shall be implemented by each agency not later than October 1, 1977.

Sec. 9. Nothing in this Order shall apply to assistance provided for emergency work, essential to save lives and protect property and public health and safety, performed pursuant to Sections 305 and 306 of the Disaster Relief Act of 1974 (88 Stat, 148, 42 U.S.C. 5145 and 5146).

Sec. 10. To the extent the provisions of Sections 2 and 5 of this Order are applicable to projects covered by Section 104(h) of the Housing and Community Development Act of 1974, as amended (88 Stat. 640, 42 U.S.C. 5304(h)), the responsibilities under those provisions may be assumed by the appropriate applicant, if the applicant has also assumed, with respect to such projects, all of the responsibilities for environmental review. (Decision-making and action pursuant to the [National Environmental Policy Act of 1969](#), as amended.)

JIMMY CARTER, May 24, 1977.

*In common usage the term "practicable" means capable of being done.

** "All practicable measures " then means anything that can be done. This certainly sets the tone that wetlands will be protected as a first order of consideration. Common usage for the term practicable also contains the restriction that the action must be feasible or practical

Under this order, FHWA is required to consider all wetlands where the USCOE is required to look at only “regulated wetlands”. Between the two requirements, all wetlands impacts caused by highway construction must be considered and mitigated where necessary.

In considering impact to historic structures under 4(f), costs of “extraordinary magnitude” may dictate whether or not a structure shall be preserved. With this precedent set in Federal regulations, it appears that costs of extraordinary magnitude should be taken into consideration when avoiding wetland impacts. This does not preclude the requirement to mitigate for wetland impacts.

1120.02.04 Preservation of the Nation’s Wetlands, U.S. Department of Transportation.

Order DOT 5660.1A

This order (August 24, 1978) describes U.S. Department of Transportation (DOT) policy that transportation facilities and projects should be planned, constructed, and operated to assure the protection, preservation, and enhancement of the nation’s wetlands to the fullest extent practicable. It also established procedures for implementation of the policy. (See [Exhibit 1100-1.](#))

1120.02.05 Clean Water Act State Implementation. Water quality regulations are mandated by the federal Clean Water Act (Water Pollution Control Act) described above. DEQ issues a 401 certificate of water quality compliance for each CWA Section 404 permit (see **Section 3** permits. The statute is online at:

http://www.fws.gov/laws/laws_digest/FWATRPO.HTML

1120.02.06 Wetland Mitigation Banking. An agreement for In-Lieu-Fee wetland mitigation is currently being finalized with COE and will be included here when it is completed. (Federal Register Volume 65, Number 216, Pages 66914-66917; October 31, 2000 and Volume 60, Number 228, Pages 58605-58614; November 28, 1995)

SECTION 1130.00 - POLICY GUIDANCE

1130.01 Federal Policy Guidance.

National Wetlands Mitigation Action Plan –

<http://www.epa.gov/owow/wetlands/pdf/map1226withsign.pdf>

This December 2004 guidance from the Bush administration reaffirms the commitment to no net loss of wetlands from EO 11990 but also lends guidance in the following areas:

- Clarifying Recent Mitigation Guidance
- Integrating Mitigation into Watershed Context
- Improving Mitigation Accountability
- Clarifying Performance Standards
- Improving Data Collection and Availability

2002 Mitigation Regulatory Guidance Letter – USCOE

http://www.epa.gov/owow/wetlands/pdf/RGL_02-2.pdf

The COE issued this guidance in December of 2004 as a companion to the National Wetlands Action Plan. The Guidance includes:

- Watershed approach
- Measuring Impacts
- Functional Assessments

- Functional Replacements
- Replacement Ratio
- Enhancements
- Preservation
- On site/offsite-in kind/out of kind
- Unavoidable impacts and
- Many other areas of wetland permit and impact mitigation discussion.

Wetland Rules, Laws and Regulations USEPA

<http://www.epa.gov/owow/wetlands/laws/>

This site covers policy and regulations from many agencies including FWS, FHWA, EPA, COE as well as information from ESA, TEA-21 and others.

1130.01.01 U.S. Army Corps of Engineers Water and Wetland Protection Guidance. The COE regulatory program concerns not only the integrity of traditional navigable waters, but also the quality of waters of the United States, from wetlands to the territorial seas. For concise current information on COE policies regarding wetlands, consult the COE [Seattle District](#).

1130.01.02 U.S. Fish & Wildlife Service Mitigation Policy, Federal Register, Vol. 46, No. 15. This document (January 23, 1981) can be located at the web site below; the preamble to the policy (not located on the web site) is [Exhibit 1100-3](#). These two documents established a policy for USFWS recommendations on mitigating the adverse impacts of land and water developments on fish, wildlife, and their habitats. The policy does not apply to threatened or endangered species or to the enhancement of fish and wildlife resources. The focus is on recommendations related to habitat value losses. USFWS commits to promote and support mitigation in the order of decreasing preference from avoidance to compensatory mitigation.

The USFWS mitigation policy provisions complement NEPA requirements. In fact, the NEPA regulations require that USFWS recommendations be fully integrated into the NEPA process as vital information necessary to comply with NEPA. The policy is online at:
<http://www.fws.gov/policy/A1501fw2.html>.

1130.01.03 U.S. Environmental Protection Agency Region 10, 404 Mitigation Policy. This document (September 4, 1985) establishes USEPA Region 10 policy on mitigating for adverse impacts on wetlands permitted under Section 404 of the CWA. USEPA commits to a no net loss wetland policy and to cooperating with other resource agencies in developing site-specific mitigation plans, including mitigation banking. USEPA also commits to promote and support mitigation in the order of decreasing preference from avoidance to compensatory mitigation. (See [Exhibit 1100-3](#).)

1130.01.04 Federal Guidance for Mitigation Banking.

<http://www.mitigationbank.com/references.htm>

<http://www.epa.gov/owow/wetlands/facts/fact16.html>

<http://www.mitigationmarketing.com/relatedlinks.htm>

Wetland banking is relatively new to ITD wetland mitigation procedures. Banking has been used by other states on fairly large scale and has been successful. The sites above cover regulations for the establishment of wetland banks as well as their long term operation. Wetland banks can be established with the cooperation of The Nature Conservancy as the long term operator and custodian.

Many states have commercial wetland banks where banking credits can be bought and sold to establish mitigation. The use of commercial wetland banking is not allowed for projects using federal funds. <http://www.fhwa.dot.gov/environment/WETMTDOE.htm> (see final paragraph)

These sites listed above document policy guidance for the establishment, use and operation of mitigation banks for the purpose of providing compensatory mitigation for authorized adverse impacts to wetlands and other aquatic resources. This guidance is provided expressly to assist meeting the requirements of Section 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act, and other applicable federal statutes and regulations.

SECTION - 1140.00 MOUS AND MOAS

1140.01 NEPA/404 Oversight Agreement. ITD does not have a formal Merger Agreement. The interdisciplinary provisions of NEPA are being met through the Oversight Agreement with FHWA and the interdisciplinary requirements of NEPA documentation are met through the various project meetings with the appropriate regulatory agencies.

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SECTION 1150.00 - TECHNICAL GUIDANCE

1150.01 General Guidance. Jurisdictional and non jurisdictional wetland impacts are processed according to the agency in charge of protecting the applicable classification. Jurisdictional wetland information is forwarded to the COE, generally in the application for a 404 permit. Non jurisdictional wetland information is included in the Environmental Evaluation forwarded to FHWA for environmental clearance.

Non jurisdictional wetland information is not forwarded to COE. Jurisdictional wetland information is included in the Wetland Discipline Report as part of the Environmental Evaluation sent to FHWA for environmental clearance. The approval letter from the COE is included with the Discipline Report.

1150.01.01 Required Reports. There is no formal format requirement for the various wetland reports and the report detail may vary according to the size and value of the wetland and/or the degree of impact to that wetland.

A Wetland Discipline Report is required for projects in which wetlands may be adversely affected during project construction or as a result of the finished project. This report is usually required before permits are issued. A typical report submitted for a COE permit application or FHWA environmental clearance includes wetland delineation, an impact assessment, a mitigation proposal and a monitoring plan that includes success standards and contingency plans in case of failure.

In general, ITD policy is to prepare a Wetland Discipline Report, which includes the wetland delineation, impact assessment, and a Wetland Mitigation Plan when unavoidable adverse impacts are identified. A conceptual mitigation plan is often included in the Environmental Evaluation if a final plan is not yet designed.

ITD's online GIS capabilities may be accessed to obtain some of the data necessary to write the wetland reports. Local jurisdictions can be contacted to find out whether additional local wetland mapping is available, on GIS or hard copy. When required, ITD's GIS staff can process requests for this information. For a list of current data sets, contact ITD's GIS staff under Planning on the ITD Intranet Portal. (This service is currently under construction but may have some limited availability).

1150.02 Wetland Delineation. The Wetland Delineation is prepared by an ITD wetland biologist or qualified consultant. It is submitted to the ITD District Senior Environmental Planner and a copy is sent to the ITD Project Engineer. The report is used as part of the data for initial development of project design alternatives. The Wetland Delineation is integrated with the initial transportation engineering project planning process and is used to develop transportation project alternatives.

The Wetland Delineation includes:

- **Introduction** – This part requires information on the location and physical condition of the site and its vicinity, field review, and maps.
- **Affected Environment** – A description is required for each wetland identified in the introduction. The description should include connection to other aquatic systems.
- **Wetland Map** – The actual delineation of all identified wetlands, streams, and other surface waters must be clearly shown on a map.
- **Functions and Values Assessment** – Using a recognized and accepted methodology, the functionality and value of the wetland to the surrounding ecology must be established.
- **Inventory of Plants** – The inventory should include a list of all the plants found in each wetland delineation and include the common and scientific names of each.

1150.03 Conceptual Wetland Mitigation Plan. The Conceptual Mitigation Plan is a rough guide to early mitigation site selection in projects with anticipated wetland impacts. The plan should provide enough information for ITD and resource agency personnel to agree upon or reject a mitigation proposal before a detailed analysis is done. Depending on the particular project and its potential impacts, the Conceptual Mitigation Plan is used either as an internal ITD document, or to coordinate with other agencies at an early stage of project development. Several reference documents to assist in preparing the Conceptual Mitigation Plan Report are cited below.

1150.03.01 Contents. Projects with anticipated wetland impacts require a Conceptual Mitigation Plan to assist in evaluating location and design alternatives. Based on the Wetland Discipline Report and the Conceptual Mitigation Plan, regulatory and resource agency comments on the preferred alternative and anticipated unavoidable wetland impacts should be obtained in writing at this stage of the project. The ITD District Senior Environmental Planner is responsible for completing this analysis and for obtaining regulatory agency comment.

The Conceptual Mitigation Plan includes:

- **Introduction** – Background information on the site is presented, a general mitigation strategy is proposed, and potential problems that need to be resolved are revealed.

- **Wetland Impacts** – This includes a summary table showing wetland characteristics and the acreage impacted.
- **Proposed Mitigation** – This includes required mitigation ratios, site description, and general mitigation strategy such as creation, enhancement, or preservation. The proposed mitigation should also establish the function and value of the wetland mitigation, when it becomes established, and compare this to the function and value of the damaged wetland in order to justify the ratio of replacement. A conceptual monitoring element should be included to validate the plan success.
- **Action Items** – Problems and data needs are identified.
- **Figures** – Large-scale vicinity maps, mitigation site maps, and sketches of proposed mitigation plans are included.

1150.03.02 References and Guidance on Mitigation Banking. Wetland mitigation banks are an important tool in providing compensatory mitigation for unavoidable impacts to wetlands. Federal, state, and local governments may authorize the establishment and use of public and private wetland mitigation banks. ITD wetland mitigation banking policies are currently under development. Completed policies will be added to this manual when completed.

1150.03.03 Reference on Wetland Preservation. Most federal, state, and local agencies allow the use of wetland preservation as a compensatory mitigation measure under specific conditions. The use of preservation as the sole compensation is discouraged; preservation should only be used when all other compensatory measures have been considered and stand-alone preservation is the best alternative. Concurrence from the permitting agencies is necessary.

1150.04 Wetland Mitigation Plan (Draft). Once the Conceptual Mitigation Plan has been approved by COE and/or FHWA, a formal plan is prepared as a draft. When the agencies have approved the plan, it is included in the project design as a final plan.

1150.04.01. After the preferred site(s) for wetland mitigation have been identified, the project wetland biologist, in consultation with the District Senior Environmental Planner and project engineer, prepare the Draft Wetland Mitigation Plan.

The Draft Wetland Mitigation Plan is normally submitted with wetland-related permit applications. The Draft Wetland Mitigation Plan provides detailed information about the project, design measures taken to avoid or minimize wetland impacts, and the measures proposed to compensate for unavoidable impacts. The draft document includes enough detail for agencies to understand ITD's mitigation plans and to make suggestions regarding permits. Before detailed discussion occurs with regulatory and resource agency personnel, District and HQ Design review the Draft Wetland Mitigation Plan. A maintenance estimate should accompany the draft document. The ITD District Environmental Manager is responsible for coordinating the appropriate review within the district.

A Draft Wetland Mitigation Plan includes:

- **Introduction** – Overview of the Mitigation Plan.
- **Document Sections** – Project description, detail of design decisions made to avoid or minimize wetland impacts, and a detailed description of the affected wetlands.
- **Proposed Compensatory Mitigation** – Mitigation ratios required, functional values and actual acreage created, enhanced, or preserved.
- **Description of Mitigation Site** – Detailed site description and the rationale for choosing the site.

- **Mitigation Strategy** – Description of the mitigation strategy; must include objectives and standards of success as well as a monitoring plan to verify the success of the objectives.
- **Construction and Planting Schedules** – Monitoring plan, contingency plans, and maintenance provisions.
- **References** – Wetland rating systems, maps, and types of wetland classification used in the mitigation plan. (Many of these references also appear in the Wetland/Biology Report, which is attached as an appendix.)
- **Figures** – Vicinity and site maps, a grading plan, and a planting plan. Grading and planting plans may be in rough form in the draft report.
- **Appendices** – Plant scientific names, wetland data sheets such as wetland delineation forms, and the Wetland/Biology Report.

After ITD review and comment, the regulatory and resource agency staff review the project proposal and the Draft Mitigation Plan. Copies of the Draft Mitigation Plan should be supplied to all agencies and parties concerned. For projects requiring an EIS, information from the Draft Mitigation Plan is incorporated into the DEIS for agency and public review. Regulatory agencies should provide written conditional approval of the Draft Mitigation Plan before work proceeds any further. Coordination and effective communication at this stage speed up the permit review process. An on-site review of the project and discussion of proposed wetland mitigation is also advisable in most cases.

At the same time that the Draft Mitigation Plan is supplied to regulatory and resource agencies, the District Senior Environmental Planner initiates permit applications. While complete information on impacts and mitigation is not available until after review of environmental documents, initial information supplied at this time will assist in starting the permit process.

1150.04.02 Description and Reference on Mitigation Monitoring. When activities such as excavation, grading, or hydrology modification occur, a wetland response is difficult to predict because wetlands are dynamic systems where plant communities can evolve rapidly as conditions change. Consequently, wetland creation, restoration, and enhancement projects are challenging to monitor.

Static monitoring plans do not adequately address the possibility of dynamic change in the plant communities they are intended to measure. As a result, the ITD Monitoring Program uses the principles of adaptive management to guide monitoring activities.

Adaptive management can be regarded as a process with two key components. One component is that monitoring is appropriate only if opportunities for change in management activities exist. The second component is that monitoring is driven by objectives. The performance objective describes the desired condition, and management activities are planned to meet the performance objective for that site.

Monitoring activities are designed to determine if the objective has been achieved. Valid monitoring data is critical to making meaningful management decisions that help meet the objectives for the site. Monitoring plans and strategies for measuring success standards are based on site conditions and plant community development. These factors are considered with performance objectives and success standards to develop site-specific monitoring plans at the beginning of each field season. Appropriate monitoring activities are used to make sure valid data is used to guide site management decisions.

1150.04.03 Final Wetland Mitigation Plan. The Final Wetland Mitigation Plan is the document of record for compliance with the permit conditions. Work on the Final Wetland Mitigation Plan should not begin until the appropriate review agencies have provided written conditional approval of the Draft Mitigation Plan. This approval is contingent on the following conditions:

- The Final Wetland Mitigation Plan will not be substantially different from the Draft Plan
- The Final Wetland Mitigation Plan will adequately demonstrate the likely success of the mitigation project.

The Final Wetland Mitigation Plan is completed only for the selected preferred alternative. In addition to including all elements of the Draft Mitigation Plan, the Final Plan must include a general grading plan and a re-vegetation plan.

The following features must be included in both the draft and final plans:

- A contour map of the mitigation project. Provide sufficient information so water depths, open water areas, boundary areas, and other features can be visualized. Seasonal ground water and the sources of hydrology for the site should be evident.
- A list of native plants to be used and general planting plan to illustrate the planting concept for the site. Reviewers need to know what species will be planted, in what proportions, and their general locations.
- Construction sequence and schedule.
- Steps to minimize damage to surrounding buffers or wetlands during site construction.
- Methods for controlling invasive species.
- A description and map of the plant communities that make up the wetland buffer.

Within a month of construction and planting, as built plans should be sent to the lead agency, including an as-built topographic survey, plant species and quantities used, photographs of the site, and notes about any changes to the original approved plan. Photographic points should be established on the land and marked on the maps so subsequent monitoring can be photographed from the same viewpoint. Also list the contractor's responsibility concerning plant replacement, fertilization and irrigation, protection from wildlife, and contingency plan requirements.

The maintenance plan submitted with the Final Wetland Mitigation Plan must describe planned maintenance activities, including erosion control and protection of plant materials from herbivores, repair of damage from vandalism, and other activities that may be required over time to maintain site viability.

Contingency plans should be developed in the event of failure or partial failure of mitigation measures and must outline the steps that will be taken if performance standards are not met.

After completing the Final Wetland Mitigation Plan, District environmental staff supply the regulatory agencies with any remaining information required to complete permit applications. If coordination and involvement have taken place in the appropriate manner prior to this stage, permits should be granted with a minimum of delay.

A constructability review occurs when the design plan is about 30 percent complete. The constructability review serves to provide the opportunity for consensus among stakeholders. After permits are received from regulatory agencies, the Mitigation Plan is finalized. The design plan is put in PS&E format after in-house review. Responsibility for this task rests jointly with the

project engineer, District environmental manager and landscape architect or designer if one has been retained.

1150.06 FHWA Technical Guidance.

1150.06.01 FHWA Technical Advisory. FHWA Technical Advisory T6640.8A (*Exhibit 300-4*) gives guidelines for preparing environmental documents. Wetland issues that should be addressed in the EIS include wetland identification and assessment, impacts to wetlands, evaluation of project alternatives, and identification of practicable measures to minimize adverse impacts.

If the preferred alternative is located in wetlands, the final EIS needs to contain a separate subsection entitled “Only Practicable Alternative Finding.” The subsection should include a reference to Executive Order 11990 (referenced in [Section 1120.02.03](#)), an explanation for why there are no practicable alternatives, an explanation for why the proposed action includes all practicable measures to minimize harm to wetlands, and a concluding statement that: **“Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.”**

The two ITD wetland discipline reports are structured to provide the information necessary to meet the requirements of FHWA’s technical advisory. For details, see FHWA’s home page: <http://www.epa.gov/owow/wetlands/> Click on Laws, Regulations, Guidance, and Scientific Documents; then Guidance; then find 1995 Mitigation Banking Guidance (under Mitigation/Mitigation Banking).

1150.06.02 FHWA IDAHO DIVISION PROCEDURE FOR ADDRESSING WETLAND IMPACTS.

Reference:

Executive Order 11990 - 23 CFR 777

Technical Advisory;

GUIDANCE FOR PREPARING AND PROCESSING ENVIRONMENTAL AND SECTION 4(F) DOCUMENTS.

T 6640.8A, October 30, 1987

FHWA Environmental Guidebook, Volume 1: Wetlands

FHWA 11/22/99 letter to ITD on non-jurisdictional wetlands

USACE Wetlands Delineation Manual:

<http://el.erdc.usace.army.mil/wetlands/pdfs/wlman87.pdf>

(1)Background:

Executive Order 11990, Protection of Wetlands, and DOT Order 56601.1A, preservation of the Nation’s Wetlands, emphasize the important functions and values inherent in the Nation’s wetlands. Federal agencies are required to avoid new construction in wetlands unless the head of the agency determines that: a) There is no practicable alternative to such construction, and b) the proposed action includes all practicable measures to minimize harm to wetlands, which may result from such use.

In common usage, the term practicable means capable of being done. Common usage for the term practicable also contains the restriction that the action must be feasible or practical. As with Section 4(f) properties, costs of extraordinary magnitude should be taken into consideration when

avoiding wetland impacts. However, some additional cost would normally be recognized as necessary and justified to meet national wetland policy.

The objective in mitigating impacts to wetlands in the Federal-aid highway program is to implement the policy of a net gain of wetlands on a program-wide basis.

FHWA is required to consider all wetlands, while the USACE is required to look only at “regulated wetlands.” Between the two requirements, all wetland impacts caused by highway construction must be considered and mitigated, where necessary.

(2)Definition:

A wetland is an area that is inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

(3)Coordination (Internal):

The Operations Engineer will have the lead in processing wetland documentation in the draft environmental document within the Division Office. The Environmental Specialist may be consulted as appropriate on all critical wetland issues processed through the Division. Prior to taking any action, the Operations Engineer should brief the Field Operations Engineer on any points of controversy during the development of the wetland documentation. The Field Operations Engineer will approve the draft EIS and EA, including wetland documentation, based on the recommendation of the Operations Engineer. The Operations Engineer will approve the Categorical Exclusion, including wetland documentation.

(4)Procedure:

The Division should evaluate the alternatives that will impact wetlands in the draft EIS, EA and CE documentation.

The Division shall use the definition listed in 33 CFR 328.3(b) to identify wetlands.

The definition requires the presence of hydrophytic vegetation, hydric soils and wetland hydrology. Exhibits showing wetlands in the project impact area in relation to the alternatives should be provided.

Within the wetland documentation, the following information must be addressed. The discussion should follow the USACE guidance on wetland delineation:

- Identification of the type, quality and function of wetlands involved,
- A description of wetland impacts,
- An evaluation of alternatives which would avoid these wetlands; and
- Identification of practicable measures to minimize harm to the wetlands.

The Division should evaluate the impacts of the proposed project on wetlands by addressing the following items;

- The importance of the impacted wetlands,
- The severity of the impacts.

The Division must recognize that listing the number of acres taken by the various alternatives of a highway proposal does not provide sufficient information upon which to

determine the degree of impact on the wetland ecosystem.

Mitigation measures that should be considered include preservation and improvement of existing wetlands and creation of new wetlands. Eligible actions include:

- Realignment and special design, construction features,
- Compensatory mitigation, such as restoration of wetlands,
- Improvements to existing wetlands or natural habitats,
- Mitigation banks.
- In-lieu fee

The Division must evaluate the importance of the wetlands by the following;

- The primary functions of the wetlands,
- the relative importance of these functions to the total wetland resource of the area; and
- Factors such as uniqueness that may contribute to the wetlands importance.

ITD submits draft and final Wetland Reports with the above information in the following format and in accordance with the guidance in ITD Design Manual Section 3.8.15:

- Wetland Delineation, by an ITD wetland biologist or qualified consultant,
- Conceptual Wetland Mitigation Plan, including impact assessment and, mitigation strategy,
- Draft Wetland Mitigation Plan, including mitigation plan, monitoring plan, contingency plan, maintenance provisions and estimate, figures.
- Final Wetland Mitigation Plan, completed for the preferred alternative, must include general grading plan, re-vegetation plan.
- If regulatory wetlands are impacted, USACE concurrence with the mitigation plan is required:

(5)Wetland Finding:

If the preferred alternative selected in the final document is located in wetlands, the final document should contain the finding required by Executive Order 11990, that there are no practicable alternatives to construction in wetlands and be supported by the following:

- A reference to Executive Order 11990;
- An explanation why there are no practicable alternatives to the proposed action;
- An explanation why the proposed action includes all practicable measures to minimize harm to wetlands; and
- A concluding statement: **“Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.”**

The required level of documentation should be in the approved Draft EIS, EA or CE, as well as in the Final EIS. The finding should be included in a separate subsection entitled “Only Practicable Alternative Finding.” The finding is made when the environmental document is signed. There is no need to duplicate the finding in the ROD or FONSI.

If a separate sheet with wetland finding and signature is desired, an example is attached. This contains the required statement and blocks for project number, key number and signature.

1150.06.03 FHWA Environmental Guidebook. FHWA's online Environmental Guidebook includes information on several federal wetland issues, including Section 404 permit requirements and agreements. Refer to FHWA's web site: <http://www.fhwa.dot.gov/> Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, the T6640.8A or www.fhwa.dot.gov/legsregs/directives/techadv/t664008a.htm

1150.06.04 FHWA Wetlands. The FHWA web site below includes information on the wetland analysis/design and permitting phase of project development; documents, brochures, and other products; a gallery of wetland pictures; and links to several other wetland web sites. <http://www.fhwa.dot.gov/> Click on FHWA Programs, then Environment, then Environmental Guidebook. Select Wetlands or Section 404 Permits. <http://www.environment.fhwa.dot.gov/guidebook/index.asp>

1150.06.05 FHWA Natural & Cultural Resources Wetlands. The FHWA web site below includes abstracts for documents produced by or for the FHWA regarding wetlands. Many of the documents can be downloaded. <http://www.fhwa.dot.gov/> Click on FHWA Programs, then Environment, then Wetlands.

1150.09 USEPA Guidance. The USEPA Office of Water provides information on wetland laws, regulations, and guidance at: http://www.fhwa.dot.gov/environment/wetland/wet_abs.htm

1150.10 Non Jurisdictional Wetlands. Jurisdictional wetlands are those wetlands that have connections to Waters of the United States. Non jurisdictional wetlands are isolated with no surface or subsurface connections to Waters of the US. Generally speaking, irrigation waters are not jurisdictional wetlands but this is not always the case. Litigation is currently being pursued that may have impacts on the definition of Jurisdictional wetlands. Refer to the US Corps of Engineers manual for details on determining what is jurisdictional and what is not.

Executive Order 11990 requires that all wetlands be protected whether jurisdictional or not. Therefore, even though a wetland may not fall under the authority of the COE, it will still be subject to the provisions of Executive Order 11990. The US COE has the authority to regulate jurisdictional wetlands but does not become involved in non-jurisdictional wetlands. ITD will use the US COE manual as the guide for all wetlands delineations and determinations, both jurisdictional and non-jurisdictional. FHWA will be the final authority on the non-jurisdictional wetland protection proposals for each ITD project that has non-jurisdictional wetland impact.

SECTION 1160.00 - PERMITS AND APPROVALS

1160.01 Introduction. ITD makes every practical effort to comply with federal, state, and local regulations pertaining to wetland displacement and mitigation wherever transportation-related construction, maintenance, and operating activities impact wetland resource quality or quantity. Protection of wetlands is generally the responsibility of one or more federal, state, or local agencies. Because agencies and wetland laws do not necessarily have uniform permit requirements, it is probable that the wetlands process for a typical ITD project will need to meet the requirements of more than one agency and/or local government. The permits or approvals listed in this section give general guidelines for wetland permits. The permit source should be contacted for details about each permit. It should be noted that the USEPA has jurisdiction over all federal and tribal land.

1160.01.01 Regulatory Agencies. Regulatory agencies responsible for permitting and/or plan approval must be involved throughout the process in order to expedite approvals. Depending on regulatory authority, the following agencies may be involved in the wetland mitigation process:

- Local jurisdictions (city or county)
- Tribal Governments
- Federal Highway Administration
- National Marine Fisheries Service
- National Park Service
- Northwest Indian Fisheries Commission
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Forest Service
- Idaho State Department of Environmental Quality
- Idaho State Department of Fish and Game

1160.02 Corps of Engineers (COE) Section 404 Permits.

Agency Responsible – COE Walla Walla Regulatory Branch. The Coast Guard incorporates authorization for Section 404 impacts into Section 9/ Bridge Permits for bridges over navigable waters of the US.

Regulated Activities and Requirements – A Clean Water Act Section 404 permit is required for discharging, dredging, or placing fill material within waters of the United States, including wetlands. The purpose of the permit is to prevent quality degradation and to prevent the overall loss of wetlands. Activities regulated under the 404 program include water resource projects (such as dams and berms), and infrastructure development (such as highways and airports).

Any civil works activity planned for the navigable waters or wetlands of Idaho is processed by the Seattle office. For more information on permits for projects on agricultural land, please see [Section 1600.00](#). For Rivers and Harbors Act permits or 404 permits, the Walla Walla office will be the lead.

Certain activities and work can be authorized upfront by general 404 Nationwide permits (NWP), which are issued on a national, District, or state basis for particular categories of activities (for example, minor road crossings and utility line backfill). General/Nationwide permits are usually granted for projects that have only minimal adverse effects on the waters of the state. Individual permits are usually required for activities that potentially have significant impacts. Both Individual and Nationwide permits require compliance with the ESA.

At a pre-application conference, held at a COE office or by telephone, ITD and the COE decide whether or not an Individual or Nationwide permit is required for a proposed project. A pre-application conference should be held for all controversial projects. Information on COE permits can be viewed online at: <http://www.epa.gov/> Click on Programs, then Offices, then Office of Water. Under water topics, select Wetlands, then click on Laws, Regulations, Guidance, and Scientific Documents. The web site above also provides information on dredged material characterization under Dredge Material Management.

1160.02.01 COE Individual 404 Permits. The program is administered jointly by USEPA and COE. In addition, USFWS, NMFS, and state agencies have important review roles. Permits are submitted to the COE. Plans must be submitted on 8.5 by 11-inch paper because they are used for

public notice. Individual permits are required for Section 404 dredge disposal and filling project activities not covered by a NWP. An Individual Permit is processed through the public interest review procedures, including public notice and receipt of comments. Citizens may request COE to conduct a public hearing. The COE Statement of Finding document describes how the permit decision was made.

Statutory Authority – Section 404 of the Clean Water Act; 33 CFR 330.5 and 330.6.

1160.02.02 COE Nationwide Permits. Nationwide Permits (NWP) may exempt ITD from applying for Individual 404 Permits when ITD conducts certain listed activities. The following NWPs most commonly apply to ITD wetland projects:

- | | |
|-----------------------|----------------------------------------|
| 3 Maintenance | 23 – Approved Categorical Exclusions |
| 13 Bank Stabilization | 27 – Wetland Restoration Activities |
| 14 – Road Crossing | 33 – Temporary Construction and Access |
| 18 – Minor Discharges | |

Please see also [Section 700.00](#) for information on COE Nationwide permits.

Statutory Authority – Section 404 of the Clean Water Act; 33 CFR 330.5 and 330.6; and Section 10 of the Rivers and Harbors Act (33 USC 403). NWPs were modified March 18,, 2002. Permit applicants can view the latest permit requirements and District conditions on the Seattle COE web site: <http://www.nws.usace.army.mil/>
Click on Permits, then When do I need a permit from the Corps?

The March 2002 modification includes the new definition of fill material which essentially states that fill material is anything that either replaces any portion of a water of the US with dry land or changes the bottom elevation of any portion of a water. (Federal Register, May 9, 2002; Volume 67, Number 90, pages 31129-31143)

1160.03 Water Quality Certification (CWA Section 401).

Agency Responsible – Idaho DEQ

Regulated Activities – Federal and state permits, such as COE Section 404 permits, that involve discharge into waters of the U.S. (including wetlands) are sent to DEQ for a certification of compliance with state water quality standards and other aquatic protection laws. The federal or state agency can request the 401 Certification on behalf of ITD following receipt of relevant permit applications. DEQ also has the authority to issue administrative orders for projects not requiring 404 permits. ITD notifies DEQ's Environmental Review Section of COE Individual 404 permits and Nationwide Permits (NWP). ITD should notify DEQ early on when applying for a 404 Individual or Nationwide Permit so the DEQ 401 Certification review and 20-day public notice can start prior to issuance of a COE final permit decision.

Statutory Authority – CWA Section 401, Please see COE Seattle web site below to find current Section 401 conditions for new and revised NWPs. <http://www.nws.usace.army.mil/> Click on Permits, then Nationwide Permits.

1160.03.01 Department of Lands Requirements. In addition to wetlands, Idaho Department of Lands (DOL) retains jurisdiction over navigable waters in the State of Idaho. This includes the lake bed below the normal pool level in lakes and also the area between normal high and low water lines on navigable streams. The governing statute is short, to the point and can be found in Idaho Code 58.13.01. It is also presented here:

TITLE 58
PUBLIC LANDS
CHAPTER 13

[NAVIGATIONAL ENCROACHMENTS]

58-1301. ENCROACHMENT ON NAVIGABLE LAKES -- LEGISLATIVE INTENT. The legislature of the state of Idaho hereby declares that the public health, interest, safety and welfare requires that all encroachments upon, in or above the beds or waters of navigable lakes of the state be regulated in order that the protection of property, navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality be given due consideration and weighed against the navigational or economic necessity or justification for, or benefit to be derived from the proposed encroachment. No encroachment on, in or above the beds or waters of any navigable lake in the state shall hereafter be made unless approval therefore has been given as provided in this act.

SECTION 1170.00 - NON-ROAD PROJECT REQUIREMENTS

Rail, airport, or non-motorized transport systems are generally subject to the same policies, procedures, or permits that apply to road systems.

Rail – Because ITD does not own railroad tracks or rail right-of-way, regulatory requirements for rail projects are coordinated with Burlington Northern & Santa Fe Railway company.

Airports – Public-use airports must address wildlife issues, including wetlands that are hazardous on or near airports. These issues are addressed in the Federal Aviation Administration (FAA) Advisory Circular *Hazardous Wildlife Attractants on or Near Airports* (No: 150/5200- 33).

The circular is online at FAA's web site: -Federal Aviation Administration (www.faa.gov)

This advisory circular provides guidance on land use practices, including wetlands, which have the potential to attract hazardous wildlife to the vicinity of airports.

- Section 1 describes types of hazardous wildlife attractants on or near airports, land use practices that attract wildlife, and siting criteria for airport projects.
- □Section 2 provides information on land uses that are incompatible with safe airport operations. Wetlands are singled out because wetlands are attractive to many species of wildlife.
- Section 3 lists land uses that may be compatible with safe airport operations. Agricultural land is given special attention. Wetland areas may be associated with land uses such as landscaping, golf courses, and agricultural crops.
- Section 4 provides guidance on notifying the FAA about hazardous wildlife attractants, including wetlands.

SECTION 1180.00 - EXHIBITS

Exhibit 1100-1 Preservation of the Nation's Wetlands.

Department of Transportation

Office of the Secretary

Washington, D.C.

DOT 5660.1A

8-24-78

SUBJECT: PRESERVATION OF THE NATION'S WETLANDS

1. **PURPOSE.** This order sets forth the Department of Transportation (DOT) policy that transportation facilities and projects should be planned, constructed, and operated to assure the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable, and establishes procedures for implementation of the policy.
2. **CANCELLATION.** DOT 5660.1, Preservation of the Nation's Wetlands, of 5-21-75.
3. **BACKGROUND AND AUTHORITY.** This order is issued pursuant to the following executive order and statutes:
 - a. Executive Order 11990, dated May 24, 1977, "Protection of Wetlands," establishes a national policy "to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." The order further provides that each agency shall provide leadership to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities, (2) providing federally undertaken, financed, or assisted construction and improvements, and (3) conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.
 - b. Sections 2(b) and 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 1651 et seq.) provide that it is "national policy that special effort should be made to preserve the natural beauty of the countryside and the park and recreation lands, wildlife and waterfowl refuges, and historic sites."
 - c. The National Environmental Policy Act of 1969 (NEPA) as amended (42 U.S.C. 4321 et seq.) establishes a national policy to "... promote efforts which will prevent or eliminate danger to the environment and biosphere and stimulate the health and welfare of man ..."

NEPA requires preparation of an environmental impact statement (EIS) for any major federal action significantly affecting the quality of the human environment. Order DOT 5610.1B, "Procedures for Considering Environmental Impacts," of September 30, 1974, requires that information on impacts on fresh water and coastal wetlands be included in the EISs prepared pursuant to NEPA.

- d. Section 2 of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) provides for consultation with the U.S. Fish and Wildlife Services and the state wildlife resources agency when "... waters of any stream or other body of water are proposed to be controlled or modified ..."
- e. The Water Bank Act (16 U.S.C. 1301) expresses the Congressional finding that "... it is in the public interest to preserve, restore, and improve the wetlands of the nation...."
- f. The Coastal Zone Management Act (16 U.S.C. 145) establishes a policy to preserve, protect, and develop natural resources of the coastal zone and where possible to restore them."

G The Federal Water Pollution Control Act Amendment 1972 (33 U.S.C. 1151) establishes a policy to "restore and maintain the chemical, physical, and biological integrity of the nation's waters."

4. DEFINITION.

- a. "Wetlands" are defined as lowlands covered with shallow and sometimes temporary or intermittent waters. This includes, but is not limited to swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows, and tidal overflows, as well as estuarine areas, and shallow lakes and ponds with emergent vegetation. Areas covered with water for such a short time that there is no effect on moist-soil vegetation are not included in the definition, nor are the permanent waters of streams, reservoirs, and deep lakes. The wetlands ecosystem includes those areas that affect or are affected by the wetland area itself; e.g., adjacent uplands or regions up and down stream. An activity may affect the wetlands indirectly by impacting regions up or down stream from the wetland or by disturbing the water table of the area in which the wetland lies. Attachment 1 references the wetlands classification system.
- b. "New construction" for purposes of this order shall include any draining, dredging, channelizing, filling, diking, impounding, and related activities, and any structures or facilities, begun or obligated after the effective date of this order. This does not include routine repairs and maintenance of existing facilities.

5. POLICY.

It is the policy of DOT to assure the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable during the planning, construction, and operation of transportation facilities and projects. In accordance with E.O. 11990, new construction located in wetlands shall be avoided unless there is no practicable alternative to the construction and the proposed action includes all practicable measures to minimize harm to wetlands that may result from such construction. In making a finding of no practicable alternative, economic, environmental and other factors may be taken into account. Some additional cost alone will not necessarily render alternatives or minimization measures impractical since additional cost would normally be recognized as necessary and justified to meet national wetland policy objectives.

6. RESPONSIBILITIES.

- a. The Assistant Secretary for Policy and International Affairs (P-1) shall oversee the implementation of the policy set forth in this order, shall recommend any modifications of procedures that may be appropriate, and shall consult with the department of the

Interior, the Council on Environmental Quality, and other agencies as appropriate concerning the Department's implementation of these policies.

b. Heads of operating administrations shall distribute this order or promulgate appropriate guidance consistent with this order the Executive Order and shall be responsible for the full implementation of the policies within their respective administrations.

c. The Assistant Secretary (P-1) and the heads of operating administrations jointly shall be responsible for preparation and/or dissemination of appropriate guidance, informational materials, training programs, and other materials necessary to comply with the Executive Order's requirement that agencies provide leadership in the field of wetland protection. Such leadership should be particularly aimed at informing and guiding the actions of state and local transportation officials operating with the assistance of or subject to permits from DOT.

7. PROCEDURES.

The following procedures should be integrated into existing environmental and public participation processes to the maximum extent feasible. The policy of this order applies to any project located in or having an impact on wetlands.

a. New authorizations or appropriations transmitted to the Office of Management and Budget will indicate, if a specific action to be proposed will be located in wetlands, whether the proposed action is in accord with E.O. 11990.

b. The impacts of new construction projects on wetlands should be identified and discussed in any submissions made to state and metropolitan Clearinghouses under Office of Management and Budget Circular A-95. Submissions to A-95 will not be required solely to address wetland issues. Appropriate opportunity for early review of proposals for new construction in wetlands should be provided to the public and to agencies with special interest in wetlands. This may include early public involvement approaches.

c. Any project that will have a significant impact on wetlands will require preparation of an EIS. Prior to the preparation of an EIS, agencies with jurisdiction and expertise concerning wetland impacts (U.S. Fish and Wildlife Service, state wildlife or natural resources agencies, and the Corps of Engineers, as appropriate) should be consulted for advice and assistance concerning the proposed undertaking.

d. An EIS (or negative declaration) on a proposal for new construction in wetlands should reflect the results of early coordination and should identify specific impacts of the project on the wetlands taking into consideration the matters listed in paragraph 6(f).

e. When federally-owned wetlands or portions of wetlands are proposed for lease, easement, right-of-way, or disposal to nonfederal public or private parties, the agency with jurisdiction over the lands should either (1) reference in the conveyance those uses that are restricted under this policy and other relevant federal, state, or local wetlands regulations; or (2) attach other appropriate restrictions to the use of properties by the grantee or purchaser and any successor, except where prohibited by law; or (3) withhold such properties from disposal.

f. In carrying out any activities (including small scale projects which do not require documentation) with a potential effect on wetlands, operating agencies should consider the

following factors in implementing the Department policy relevant to a proposal's effect on the survival and quality of wetland:

- (1) Public health, safety and welfare, including water supply, water quality, recharge and discharge, and pollution; flood and storm hazards; and sedimentation and erosion.
- (2) Maintenance of natural systems, including conservation and long-term activity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish and wildlife, timber, and food and fiber resources; and other uses of wetlands in the public interest, including recreational scientific, and cultural uses as well as transportation uses and objectives.

g. Alternatives that would avoid new construction in wetlands must be studied, giving consideration to environmental and economic factors. If use of wetlands is proposed, the alternatives analysis for major actions should have demonstrated that there is no practicable alternative to the use of the wetlands and that all practicable measures to minimize harm to the wetlands have been included.

h. For any major action which entails new construction located in wetlands, a specific finding should be made by the affected operating administration that (1) there is no practicable alternative to construction in the wetland, and (2) that all practicable measures to minimize harm have been included. The proposed finding should ordinarily be included in the final EIS or negative declaration for the proposal.

8. APPLICABILITY.

a. All programs and projects proposed for direct construction, assistance, or permit by the DOT shall be reviewed for consistency with the policy of this order.

b. This order does not apply to projects presently under construction or to projects for which all funds have been obligated through fiscal year 1977, to projects and programs that a draft or final EIS was filed prior to October 1, 1977.

c. Nothing in this order shall apply to assistance provided for emergency work essential to save lives and protect property or public health and safety, performed pursuant to sections 305 and 306 of the Disaster Relief Act of 1974 or pursuant to other emergency operations.

FOR THE SECRETARY OF TRANSPORTATION: Alan Butchman - The Deputy Secretary

Further information concerning the type, number, and location of wetland areas may be obtained from Circular No. 39 of the Department of the Interior, Fish and Wildlife Service, or from the wetlands inventories maintained by the various states. The classification system presently contained in Circular No. 39 is being revised to provide uniformity in concepts and terminology throughout the United States. A notice of intent to adopt the classification system was published in the December 12, 1977, Federal Register. Copies of the new classification system may be obtained from the Fish and Wildlife Service, Suite 217, Dade Building, 9620 Executive Center Drive, St. Petersburg, Florida 33702.

The Fish and Wildlife Service is also developing a National Wetlands Inventory Maps that will be completed in 1981. They will display typical wetland information on U.S. Geological Survey base maps for all of the states and U.S. territories and possessions. Maps are currently available

of coastal Texas and Louisiana. On new projects, Fish and Wildlife Service should be contacted to determine whether maps have been developed for proposed project areas.

Exhibit 1100-2 US EPA Region 10 404 Mitigation Policy.

Purpose and Need

This document establishes EPA Region 10 policy on mitigating adverse environmental impacts of projects permitted under Section 404 of the Clean Water Act (33 U.S.C. §1251 et seq.). This policy will:

- (1) help ensure consistent mitigation recommendations, allowing the Corps of Engineers and 404 applicants to anticipate EPA recommendations and plan for mitigation early in the permit process;
- (2) help avoid project delays and ensure proper consideration of aquatic resources prior to 404 application submittals;
- (3) provide guidance to Region 10 personnel during project review. This policy incorporates sufficient flexibility to allow variations in mitigation recommendations as required by differences in individual project proposals. This mitigation policy will be modified as necessary to reflect compliance with new laws, national EPA policy or significant new information.

Authority

This policy is established in accordance with the following major authorities:

A. Clean Water Act (33 U.S.C. §1251 et seq.)

1. Section 1251: “The objective of this chapter is to restore and maintain the chemical, physical and biological integrity of the Nation’s waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter ...

(1) It is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985”

B. The §404(b)(1) Guidelines (40 CFR Part 230) developed pursuant to §1344(b)(1) of the Clean Water Act.

1. 40 CFR §230.1(c): “Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.”

2. 40 CFR §230.10(a): “... no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem ...”

3. 40 CFR §230.10(b): “No discharge of dredged or fill material shall be permitted if it ... causes or contributes ... to violations of any applicable state water quality standard; Jeopardizes the continued existence of species listed as endangered or threatened, or results in likelihood of the destruction or adverse modification of a habitat which is determined ... to be critical habitat.

4. 40 CFR §230.10(c): “... no discharge of dredged or fill material shall be permitted that will cause or contribute to significant degradation of the waters of the United States.”

5. 40 CFR §230.10(d): “... no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem ...”

C. The National Environmental Policy Act (42 U.S.C. §4321 et seq.) states, in part, “The Congress authorizes and directs that, to the fullest extent possible ... all agencies of the Federal Government shall ... Identify and develop methods and procedures ... which will ensure that

presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations ...”

D. Environmental Protection Agency Statement of Policy on Protection of Nation’s Wetlands (38 FR 10834; March 10, 1973):

“Policy (b) It shall be the Agency’s policy to minimize alterations in the quantity or quality of the natural flow of water that nourishes wetlands and to protect wetlands from adverse dredging or filling practices, solid waste management practices, siltation or the addition of pesticides, salts, or toxic materials arising from non-point source wastes and through construction activities, and to prevent violation of applicable water quality standards from such environmental insults.”

Scope

This policy applies to all EPA Region 10 reviews of activities permitted by the Corps of Engineers under §404 of the Clean Water Act (33 U.S.C. §1344) and to EPA review of any other projects involving the discharge of dredged or fill material into waters of the United States. This policy, however, will not be used to approve permits for discharges of dredged or fill material which will cause or contribute to significant degradation of the waters of the United States, consistent with the requirements of 40 CFR §230.10(c) or for projects not otherwise in compliance with the §404(b)(1) Guidelines.

Definition

EPA Region 10 hereby adopts the definition of mitigation given in the CEQ regulations at 40 CFR §1508.20:

“Mitigation includes:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensation for the impact by replacing or providing substitute resources of environments.”

Mitigation Policy Statement

EPA Region 10 will actively promote and support mitigation for all projects subject to Section 404 of the Clean Water Act, in accordance with the hierarchical system envisioned in the CEQ regulations (§1508.20), the U.S. Fish and Wildlife Service Mitigation Policy, the §404(b)(1) Guidelines (40 CFR §230.10), EPA national policy and the policy set forth below.

Recommendations will be consistent with, but not limited to, the mitigative actions specified in subpart H of the §404(b)(1) Guidelines (40 CFR §§230.70-230.77). All mitigation plans must be implemented prior to or simultaneous with any construction activities.

I. EPA will seek mitigation in the following sequence:

- A. EPA will actively promote project alternatives that avoid all adverse environmental impacts associated with the proposed action, consistent with 40 CFR §230.10(a). For proposed discharges of dredged or fill material for non water-dependent activities in special aquatic sites, the burden of proof shall be on the applicant to demonstrate that practicable, less environmentally damaging alternatives are not available. For all other proposed discharges, EPA will request information demonstrating the proposed action is the only available practicable alternative. In the absence of this information, EPA will recommend denial or modification of the §404 permit.

B EPA will actively promote alternatives that reduce or minimize adverse environmental impacts. This may include recommendations to reduce the amount and extent of fill (or dredging), and to modify the timing and methods of construction.

- B. For unavoidable adverse environmental impacts in waters of the United States, EPA will actively promote and support compensation by complete, in kind replacement of aquatic site functional values or the provision of substitute resources or environments of equal or greater value. In developing recommendations, EPA will give great weight to the resource categories and mitigation goals listed in the mitigation policy of the U.S. Fish and Wildlife Service (Federal Register, vol. 46, no. 15, pages 7644-63, January 23, 1981).

II. EPA will recommend no net loss of aquatic site functional value for all projects. EPA will actively promote and support in kind aquatic site replacement in close proximity to the project site. Functional values will be calculated using the Habitat Evaluation Procedures of the U.S. Fish and Wildlife Service (1981 or as subsequently amended), the Method of Wetland Functional Assessment of the Federal Highway Administration (March 1983 or as subsequently amended), any subsequent professionally-recognized aquatic site assessment document and/or the best professional judgment of designated representatives from EPA and appropriate state and federal resource agencies. While EPA will seek a one-for-one aquatic site functional values replacement, this may often translate into a greater than one-for-one acreage ratio because: (1) success rates of creation, enhancement and restoration projects are often less than 100% and (2) there is a transition interval for creation and enhancement projects before they fully provide their intended functions. There may also be circumstances under which a replacement acreage ratio of less than one-for-one is acceptable due to the higher functional values of the replacement aquatic site.

III. EPA will actively promote the inclusion of mitigation as an integral part of projects permitted under §404 of the Clean Water Act, either as part of the project description or as a condition of the §404 permits unless it is clear that the permitting authority (the State or Corps of Engineers) can revoke or suspend the permit for failure to implement the acceptable mitigation. EPA will consider elevation under §404(q) of the Clean Water Act for all projects proposed for permitting by the State or Corps of Engineers, which do not meet the mitigation requirements of the §404(b)(1) Guidelines or this policy.

IV. EPA will require information as delineated in 40 CFR §230.11 in order to evaluate the environmental impacts of and mitigation required for dredge and fill projects. EPA will then evaluate project compliance with the §404(b)(1) Guidelines. If the project does not include appropriate and practicable steps to minimize potential adverse impacts on the aquatic ecosystem, EPA will recommend denial of the §404 permit and shall state the reasons, in writing, to the permitting authority and the applicant. Where feasible, EPA will also recommend steps that may be taken to bring the project into compliance with the §404(b)(1) Guidelines, including appropriate mitigation.

V. EPA will automatically consider prohibiting the specification of the area as a disposal site pursuant to §404(c) of the Clean Water Act and, when appropriate, shall prepare the reports necessary for taking such action for aquatic sites with significant resource values (e.g., U.S. Fish and Wildlife Service Resource Category I; local, tribal, state or federally designated significant aquatic habitats; and EP identified high priority aquatic sites). The District Administrator will recommend action under §404(c) unless it can be demonstrated that the discharge of dredged or fill material will not have unacceptable adverse environmental impacts.

VI. EPA will maintain sufficient flexibility in its approach to allow for innovative solutions to compensate for unavoidable adverse impacts. In some circumstances, it may be desirable from an ecological perspective to mitigate one kind of aquatic site functional loss with a different aquatic

site functional gain. The final recommendation will favor that alternative or mitigation plan which provides the greatest benefits to the functional values of the aquatic site.

VII. EPA does not subscribe to any resource value tradeoff calculation that may be provided in the scientific or regulatory literature. The ecological characteristics of each aquatic site are unique and can only be mitigated by resource value judgments tailored to the site. EPA will cooperate with other resource agencies in developing site-specific mitigation plans and will abide by mitigation decisions made by resource agency representatives, provided such decisions are consistent with the §404(b)(1) Guidelines and other statutory or regulatory requirements. EPA may recommend different or additional mitigative actions.

VIII. EPA will use where feasible the following functions and values in assessing project impacts and requiring compensation:

- Groundwater Recharge and Discharge
- Flood Storage and Desynchronization
- Shoreline Anchoring and Dissipation of Erosive Forces
- Sediment Trapping
- Nutrient Retention and Removal
- Food Chain Support
- Habitat for Fisheries
- Habitat for Wildlife
- Active Recreation
- Passive Recreation and Heritage Value

IX. EPA will actively pursue, through its authority under sections 308 and 309, mitigation and appropriate penalties for violations of §301 of the Clean Water Act in the following sequence:

A. Complete site restoration (removal of dredged or fill material with appropriate functional value replacement) and civil or criminal penalties.

B. Creation of a functionally equivalent aquatic site nearby (on-site, in-kind replacement) with civil or criminal penalties.

C. Creation of a functionally equivalent aquatic site or other aquatic site (out-of-kind replacement) at a distant (functionally separated) site with civil or criminal penalties.

Recommendations may include aquatic site enhancement in conjunction with or in lieu of aquatic site creation.

D. Contribution to a mitigation banking fund of sufficient magnitude to purchase an aquatic site of comparable quality (i.e., functional value) to that lost to the unauthorized fill, with civil or criminal penalties.

E. Appropriate civil or criminal penalties. The magnitude of the penalty should be based upon the value of the lost resource and the previous knowledge of the applicant. Where feasible, resource values will be based upon the contribution of the aquatic site over its natural lifetime to ecosystem functioning.

X. EPA will actively promote and support monitoring and maintenance for all mitigative actions for aquatic site creation, enhancement or restoration. The period of monitoring will be determined on a case-by-case basis in consultation with appropriate state and federal resource agencies, and will be of sufficient length to adequately assess, and assure project success.

XI. EPA will actively promote and support site restoration for abandoned projects in order to minimize long-term adverse environmental impacts. Recommended actions could include, but are not limited to, fill removal, vegetative plantings, fish restocking, and creation of functionally

equivalent wildlife habitat. Site restoration must be a part of the project, a condition of the permit or the subject of an agreement between the applicant and an appropriate state or federal resource agency.

XII. EPA will actively promote and support pre-permit mitigation agreements between applicants and appropriate state and federal resource agencies for projects otherwise in compliance with the §404(b)(1) Guidelines. These agreements must provide for complete replacement of aquatic site functional values. EPA will recommend that such agreements be made a condition of the §404 permit.

XIII. EPA will actively promote and support the preservation of existing aquatic resources separate from any specific project proposals. When reviewing projects for compliance with the §404(b)(1) Guidelines, preservation of aquatic resources will not be considered mitigation for aquatic functional values to be damaged by construction projects. Such a policy would sanction an irretrievable net loss of aquatic resources.

XIV. EPA will actively promote and provide technical support for research on unproven but promising mitigation methods.

XV. EPA will recommend pilot studies for any mitigative action that has not been scientifically demonstrated to be successful and/or about which there is significant resource agency uncertainty. The pilot studies must be completed, the results reviewed, and the mitigation plan accepted as viable by EPA and appropriate state and federal resource agencies before EPA will agree to the proposed discharge.

XVI. EPA will recommend and actively promote the fee title transfer of mitigation sites to the state or federal resource agency with management responsibility for the created or preserved aquatic resource.

XVII. EPA will actively promote and support mitigation banking and will provide technical assistance to federal and state agencies seeking to establish a banking program. EPA will not support the use of a mitigation bank to justify a project that is not otherwise in compliance with the §404(b)(1) Guidelines.

XVIII. EPA will coordinate mitigation activities with the U.S. Fish & Wildlife Service, the National Marine Fisheries Service, the Corps of Engineers, and appropriate tribal, state and local agencies in order to maximize consensus and avoid duplication of effort.

XIX. EPA will work with the Corps of Engineers and appropriate federal, state, tribal and local agencies to identify in advance acceptable dredged material disposal sites and appropriate mitigation pursuant to 40 CFR §230.80.

XX. EPA will actively promote pre-application conferences and field inspections to develop acceptable mitigation proposals, including the exploration of reasonable alternatives that avoid or minimize adverse environmental impacts on the aquatic ecosystem. (original signed by person named below) September 4, 1985

Ernesta B. Barnes Date
District Administrator
March 1990

Exhibit 1100-3 Wetland Glossary.

Compensatory Mitigation – The restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources expressly for the purpose

of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization have been achieved. (See also **Mitigation Bank.**)

Conceptual Mitigation Plan – A document that includes the transportation project description, wetland impacts, and discussion of the mitigation concepts.

Constructed Wetlands – Areas created or restored specifically to treat either point or non-point source pollution wastewater. Although a constructed wetland might look the same as a created wetland, different regulations apply. Design and maintenance of constructed wetlands is determined according to their stormwater and hydraulic functions. Vegetation is used to maximize the desired functions.

Created Wetlands – Wetlands that have been constructed on a non wetland site specifically to compensate for wetland losses permitted under Section 404 of the Clean Water Act. Created wetlands can also be created to compensate for impacts under local permits or ITD directive. Wetlands can also be accidentally created as a result of construction activities.

Delineated Wetlands – Wetlands whose boundaries have been identified by a qualified biologist using a standard delineation methodology evaluating soils, vegetation, and hydrology. A right of entry might be required to formally delineate a wetland for project purposes if it does not occur entirely on ITD right of way. The delineated boundary is flagged in the field and surveyed. The biology report includes the delineation survey with flag locations and numbering.

Enhancement – Actions taken to augment functions and societal values at an existing degraded wetland where wetland criteria are currently met, along with its associated upland buffer area.

Exotic Species – Species found in, but not native to, a particular area.

Federal Nexus- A connection or link to a federal permit, regulation, action or funding.

Final Wetland Mitigation Plan – A document that includes description of all wetlands in the project area, wetland site plan, wetland site plan, wetland revegetation plan, standards of success, operation and maintenance of the mitigation site, and the monitoring plan.

Function Assessment – Systematic method(s) designed to evaluate the presence and level of performance of wetland functions. Function Assessment methods include, but are not limited to, Reppert et al., Habitat Evaluation Procedure, Wetland Evaluation Technique, Indicator Value Assessment, and Hydro-geomorphic methods.

Groundwater – Water that occurs below the surface of the earth, contained in pore spaces. It is either passing through or standing in the soil and underlying strata and is free to move under the influence of gravity.

Habitat – The environment occupied by individuals of a species, population, or community.

Hydrology – The science that relates to the occurrence, properties, and movement of water on the earth. It includes water found in the oceans, lakes, wetlands, streams, and rivers, as well as in upland areas, above and below ground, and in the atmosphere.

Impact – An action that adversely affects a wetland or other ecosystem; for example, road construction, timber clearing, or agricultural activities that result in wetland conversion or degradation.

Indicator – One of the specific environmental attributes measured or quantified through field sampling, remote sensing, or compilation of existing data from maps or land use reports, used to assess ecosystem condition or functions or exposure to environmental stress agents.

In-kind Compensation – Development of wetlands that are of the same system and class, as defined by Cowardin et al., (1979) in *Classification of Wetlands and Deepwater Habitats of the United States*, and that provide similar wetland functions and values as those wetlands adversely impacted by development activities.

Invasive Vegetation – Those (typically) nonnative plant species that often out compete native plant communities.

Jurisdictional Wetlands – All naturally occurring wetlands, some wetlands unintentionally created as the result of construction activities, and those created specifically for the compensation of wetland losses. These wetlands are regulated by the Army Corps of Engineers and local jurisdictions. (Ditches created in non-wetland areas that support wetland vegetation are not usually considered jurisdictional wetlands.) Check with the Environmental Affairs Office for site-specific clarification.

Lacustrine – The term “lacustrine” is related to the word “lake”. Thus a lacustrine wetland is, by definition, lake related.

Mitigation – Mitigation means sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts. In the following order of decreasing preference, mitigation is:

- a. Avoiding the impact altogether by not taking a certain action or part of an action. Avoidance has the greatest reliability and is the simplest and most effective way to minimize impacts.
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.

Mitigation Bank – A net gain in wetlands to be drawn upon to offset several small wetland losses from several off-site sites or projects. A property that has been protected in perpetuity, and approved by appropriate county, state and federal agencies, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts. The compensatory mitigation may be through restoration, creation, and/or enhancement of wetlands, and the preservation of adjacent wetland or stream buffers and other habitats.

Mitigation Bank Credits – The acres or other agreed upon unit of currency available at a mitigation bank site for use as compensation. A unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions and/or values, or by some other assessment method.

Mitigation Bank Currency – The medium of exchange of credits for debits in a mitigation bank. The currency represents an amount of wetland area and functions and values.

Mitigation Bank Debits – The acres or other agreed upon unit of currency adversely impacted by development activities.

Mitigation Bank Implementation Plan – A plan under which each mitigation bank site must be explicitly authorized to document the following:

- a. site selection
- b. service area
- c. preliminary design
- d. final design and number of credits anticipated
- e. as-builts and number of potential credits
- f. mechanism for tracking credits (transaction ledger)
- g. hydrology performance standards
- h. other performance standards
- i. schedule for credit release
- j. contingency plans
- k. maintenance and monitoring schedules
- l. long term management of bank

Mitigation Bank Instrument – The documentation of agency and bank sponsor concurrence on the objectives and administration of a mitigation bank. The instrument describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Mitigation Bank Service Area – A designated geographic area (e.g., watershed, county) wherein a mitigation bank can reasonably be expected to provide appropriate compensation for impacts to wetlands and/or other aquatic resources.

Mitigation Bank Sponsor – Any public or private entity responsible for establishing and, in most circumstances, operating a mitigation bank.

Monitoring – The systematic evaluation of a mitigation site to determine the degree to which the site meets its performance standards and to determine if modifications in the maintenance or management of the site are necessary to achieve the performance standards.

Natural Wetlands – Wetlands that exist due to natural forces alone, or unintentionally developed through construction or management practices that alter hydrology. Natural wetlands can be found in unusual areas, including filled areas, some ditches, inactive borrow pits, ponds, and agricultural fields. Natural wetlands are protected by federal, state, and local regulations as well as ITD's internal policies.

Non-jurisdictional Wetlands – Non-jurisdictional wetlands include those artificial wetlands intentionally created from non wetland sites, including, but not limited to, irrigation and drainage ditches, canals excavated in uplands, stormwater detention ponds, wastewater treatment facilities created in uplands, and certain agricultural activities and landscape amenities created in uplands. Grass-lined swales and wastewater treatment facilities can be constructed in wetlands but must be so designated and specifically designed for water treatment purposes. Mitigation is required to compensate for the wetland lost to such a facility. The Shoreline Management Act and Growth

Management Act include as non-jurisdictional those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. ITD as a “no net loss” policy regarding wetlands and will mitigate impacts to wetlands created after that date.

Out-of-Kind Compensation – Compensation that replaces one wetland system and class, as defined by Cowardin, with another.

Palustrine – The term “Palustrine” comes from the Latin word “Palus” or marsh. Wetlands within this category include inland marshes and swamps as well as bogs, fens, tundra and floodplains. Palustrine systems include any inland wetland that lacks flow.

Performance Standards – Quantifiable standards capable of measuring the degree of success of a mitigation site when compared to previously established goals and objectives. An observable or measurable benchmark for a particular objective, against which a mitigation site can be compared. If the specified standard is met, the related objective is considered to be successful.

Preservation – Setting aside of wetlands in their existing condition to protect them in perpetuity as part of a plan for compensatory mitigation.

Restoration – Actions taken to intentionally reestablish wetland area, and functions and values where wetlands previously existed, but are currently absent due to the absence of wetland hydrology or hydric soils. Re-establishment of historic wetland types with high quality functions and values where degraded wetlands are currently present may also be considered restoration (e.g. conversion of diked palustrine wetland to estuarine wetland).

Wetland – Area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not usually include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands, if permitted by the appropriate authority.

Wetland Buffer – The area adjacent to a wetland that serves to protect the wetland from outside influences. Wetland buffers also contribute to the integral functions of the wetland. Regulated buffer widths vary depending upon the quality of the wetland and guidelines established by the local jurisdiction under the state Growth Management Act. Required buffer widths are identified in the project’s wetland/biology report. Wetland buffers must be shown on contract plans sheets. No work may occur within an identified wetland buffer area unless it has been approved by the appropriate permitting agency.

Wetland Functions – Wetland functions are the physical, chemical, and biological processes or attributes that are vital to the integrity of wetland/upland landscape interrelationships (landscape systems).

Wetland Inventory – A wetland inventory is a data collection process during which information about the presence, approximate extent, and in some cases the characteristics of wetlands are

collected. Inventories can be general (e.g., aerial photographs) or site-specific (through field inventory work).

Wetland Values – Wetland values are those attributes that, although not necessarily essential to the integrity of the landscape systems, are perceived as valuable to society (Adamus et al, 1991).